

TECHNICAL REPORT OF THE GENERAL AVIATION MAINTENANCE WORKING GROUP

SECTION 3: ANALYSIS OF THE GA MAINTENANCE WORKING GROUP'S GENERAL RECOMMENDATIONS

Organizational Changes

The GA Maintenance Working Group recommends revising the appendixes to part 43 to clarify their intent and provide aviation maintenance personnel with a more systematic organization of their contents. Specifically, the working group recommends reorganizing the appendixes by grouping similar maintenance requirements by subject in the same area of the rule.

- Currently, part 43 has requirements for maintenance recordkeeping in § 43.9 and in appendix B to part 43. The working group recommends grouping the requirements for documenting major repairs and major alterations, currently found in appendix B to part 43, with the requirements for documenting maintenance, preventive maintenance, rebuilding, and alteration, currently found in § 43.9. The inclusion in § 43.9 of the regulatory requirements of appendix B to part 43 would eliminate the need for appendix B to part 43. The working group notes that having the requirements for recordkeeping in one section of the rule makes the rule easier to read and understand, and therefore more useful to the aviation maintenance community.
- The working group also recommends removing the requirement for Canadian Engineers (AMEs) to complete FAA Form 337 for major repairs and alterations from appendix B to part 43 and incorporating the requirement in § 43.17. The working group notes that having the requirements for AMEs in one section of the rule makes the rule easier to read and understand, and therefore more useful to the aviation maintenance community.

Major Repairs and Major Alterations

The GA Maintenance Working Group recommends revising the manner in which major repairs are recorded, making the documentation requirements clearer and less burdensome on the aviation community. The major repair and major alteration documentation requirements currently located in appendix B to part 43 should be included with the recordkeeping requirements for other maintenance actions.

The GA Maintenance Working Group also made several recommendations to the Major/Minor Working Group regarding appendix A to part 43. Those recommendations will be discussed in the Major/Minor Working Group's technical report.¹

¹ The Transport Canada working group member requested that the following dissenting view be included in this report: "The Transport Canada member of the working group regrets that the proposed amendments to part 43 still use the same term (i.e., "major") to classify both the extent of a design change and the difficulty of a maintenance task, despite the completely different criteria involved. He considers that this will continue to create confusion, to the detriment of cross-border acceptance of aeronautical products and services. Taken together with other changes proposed by the Major/Minor Working Group, the potential now actually exists for more problems in the future than we have experienced in the past. Transport Canada continues to urge that data and work performance issues be treated separately."

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100-Hour Inspection

The GA Maintenance Working Group recommends revising the scope and detail of the annual and 100-hour inspection requirements and organizing the requirements in a manner that would delineate the scope of the inspection.

Specifically, the working group recommends revising appendix D to part 43, "Scope and Detail of Items (as Applicable to the Particular Aircraft) to be Included in Annual and 100-Hour Inspections." The proposed changes to appendix D to part 43 are made largely to organize and better structure the appendix and to delete redundant language. The working group also recommends expanding and reorganizing the scope of appendix D to part 43 to include sections specifically for balloons and rotorcraft. The working group notes that the detail for the conduct of these inspections depends on the aircraft design, and therefore should be determined by the manufacturer's recommendations. The working group further recommends changes to the appendix to group the general and all-inclusive inspection of aircraft structures together and set forth the inspection requirements for each aircraft system in its own section. To condense the inspection requirements, the elements contained in § 43.15 that address specific inspection items should be moved to appendix D to part 43.

Testing Altimeters and Transponders

The working group also recommends the removal of the procedures for the conduct of altimeter and transponder tests and inspections from appendixes E and F to part 43 and the placement of these procedures in advisory material. The working group notes that the requirements for testing and inspecting the equipment would remain in §§ 91.411 and 91.413. However, the working group believes that the specific test and inspection procedures of this equipment should be published in the same manner as all other aircraft equipment tests and inspections: for instance, in aircraft or equipment manufacturing maintenance manuals or in FAA advisory material. The purpose of the working group's changes to §§ 91.411 and 91.413 is to reduce redundant language and simplify 14 CFR. The revisions are not meant to change the requirements to perform the tests and inspections of the equipment.

The recommendations in this report would remove and reserve appendixes E and F to part 43, the detailed maintenance procedures for testing and inspecting altimeter, static, and air traffic control (ATC) transponder systems. This information would be placed in a revision to AC 43-6, *Automatic Pressure Altitude Encoding Systems and Transponders Maintenance and Inspection Practices*, and AC 43-203, *Altimeter and Static System Tests and Inspections*. The working group proposes that this would allow the procedures to be updated more easily and would modernize the rule to permit the safe use of new technology. The working group also proposes that removing the specific procedures for maintaining this equipment from the appendixes would enable other, more appropriate standards to be applied by operators of complex modern equipment. The existing standards would still be available in the ACs for general aviation operators and other operators to whom they remain applicable.

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Repair Station Documentation

In an effort to reduce paperwork requirements and to harmonize better with the rules used in other countries, the working group recommends standardizing the use of the term "approval for return to service" in place of a maintenance release.

Currently, repair stations are required in appendix B to part 43 to give the aircraft owner a separate maintenance release signed by an authorized representative of the repair station. The recommendation would require that the information currently found in the maintenance release be combined with the information on the work order. Therefore, a repair station would no longer need to provide a separate maintenance release after performing a major repair. The repair station instead would give the owner a signed copy of the work order, with an approval for return to service with respect to the work performed.

The group also recommends requiring that, if applicable, the total time in service of the aircraft when the work was performed be recorded in the maintenance entry on the appropriate document. By requiring persons performing maintenance on aircraft to record the aircraft time in service on the maintenance entry, the FAA would be able to document the time in service of the maturing U.S. aircraft fleet.